

In forming these tables, three observations in which the errors exceed $6''$ were rejected, one by Mr. Dunkin in 1863 ($-7''.39$), and two by Mr. Downing in 1873 and 1874 respectively ($+7''.27$) and ($-6''.15$).

The resulting errors again point to large personalities in the measurement of the diameter of the Moon as in the case of the Sun, and Mr. Lynn and Mr. Carpenter again differ in their values by nearly $5''$.

Though these results are not entitled to the same value as those of the Sun, on account of the much fewer number of observations, yet taken in connection with those of the Sun, they indicate a very definite and systematic error, as peculiar to an observer as a rate is to a chronometer, and one from which there seems to be no method of escape.

While this personality does not affect the tabular place of the Sun, as the process of taking the mean of the limbs eradicates the mischief, in the course of a lunation the quantities involved seem to be of sufficient magnitude to seriously affect the value of the tabular errors derived from the observations of the Moon.

A Note of an Observation during the Transit of Jupiter's Satellite IV., April 18. By Edmund J. Spitta.

The greater portion of this transit was observed here, both with the 10-inch reflector and three-inch Tulley refractor. Definition fair; temperature 54°F. ; barometer 30.14 .

The satellite for the greater part of the transit appeared black, as it commonly does; but what I should like to call attention to is, that this blackness remained until egress, *instead of disappearing about ten minutes before*—an observation I believe unique, and seen also by Mr. Gledhill of Bermerside, as well as others.

Further than this nothing unusual occurred, excepting that for about half an hour, between 11 and 11.30, the satellite became exceedingly faint, appearing to me, at times of good definition, irregularly elongated parallel to the belts, assuming then more of a chocolate colour. (Mr. Gledhill also noticed the faintness and ill-defined appearance at the same hour.) I was also struck by the faint appearance both before and after transit of this satellite as compared with the others; and, to use an expression once employed by Dawes, "it was far from obvious."

I may add that Satellite III., during a dark transit on May 2 (temperature 46°F. , barometer 29.58 , definition good until the time of egress, when it became unsteady) was quite different. While dark, it appeared uniformly round, and of a deep steel colour, and about ten minutes before egress became invisible, but eventually reappeared on the limb of the planet, perfectly white and defined, during good moments of definition.

Ivy House, Clapham Common:
1885, May 4.

Total Solar Eclipses Visible in the British Isles 878—1724.
By J. Maguire.

About ten years ago I calculated several if not all the total solar eclipses the central lines of which have touched the British Isles, beginning with the year 878 and ending with 1724. I used Hansen's Tables of the Sun and Moon, and in some cases Leverrier's of the Sun. A small map of the British Isles, showing the central and limiting lines of thirteen eclipses accompanies this paper.

The points for which calculations have been made are marked upon the lines, together with the Greenwich mean time. The width of shadow and the duration on the central lines are given on the list which follows.

It appears from the limiting lines of these eclipses that London has been twice totally eclipsed, Dublin twice, and Edinburgh five times. And assuming the calculations to be correct, the Moon's shadow would have fallen upon every spot of the British Isles except a small space at Dingle, on the West Coast of Ireland.

Date.		G.M.T.	Width of Shadow in miles.	Duration.
		h m s		m s
878	Oct. 29	1 17 30	168	2 13
885	June 15	21 46 0	196	4 55
1023	Jan. 24	0 20 0	130	2 24
1133	Aug. 1	23 23 0	154	4 34
1140	Mar. 20	2 49 0	132	3 26
1185	May 1	2 3 0	154	4 33
1330	July 16	3 54 0	42	0 56
1424	June 26	3 6 0	168	4 14
1433	„ 17	3 15 0	194	4 27
1598	Mar. 6	22 25 30	84	1 34
1652	Apr. 7	22 34 0	122	3 0
1715	May 2	21 7 0	184	4 0
1724	„ 22	6 35 0	136	2 48

Norwich: 1885, April.